The White-throated Kingfisher (*Halcyon smyrnensis*) in Northern Sumatra

The White-throated Kingfisher (*Halcyon smyrnensis*) is widely distributed in southern Asia (King and Dickinson, 1975). The species is characteristic of open and semi-open habitats near water, and it is common in many areas, including much of West Malaysia (Glenister, 1953). It has been generally supposed, however, to be absent from Sumatra (Delacour, 1947; Ogilvie-Hall, 1947; Peters, —; Van Marle, 1977). This supposition is now considered

I saw several individuals of the species during a brief visit to the province of Aceh, Sumatra in early 1979. Mr. and Mrs. Andrew Smith discovered 4 individuals in the Goodyear rubber plantation near Permatang Kuantan on February 6. I saw another individual near the village of Ambuntan on Samosir Island in Lake Toba on February 10. Still another was offered for sale by a roadside bird dealer along the highway from Bireuang to Medan on February 14. It was said to have been captured nearby, at Matangkuli, approximately 25 km from Medan.

The birds were easy to identify. The appearance of the species is unmistakable, and its voice is also distinctive. I was familiar with the species, having studied it in both southern India and Malaysia.

The individuals in the plantation near Kuantan were sitting on telegraph wires along a strip of clearing by a railroad tracks. The individual on Samosir was observed perched on a wooden handrail in the lake. The captive individual was caught in a mistnet. These are all habitats in which the species would be expected to occur on the continent.

The two [illegible] individuals were scattered over an area of several hundred km^2. This would suggest that the population of the species in Aceh [illegible]

is quite considerable

Given the lack of earlier records, the population may be assumed to be the result of a recent invasion. There is no evidence to indicate a precise date, but Mr. and Mrs. Smith found the birds in the plantation in 1979, while Van Strien failed to see them during an earlier visit to the same general area in 197– (pers. comm.).

"Invaders may be successful in occupying new regions because they move into "vacant" niches, often newly created ones. Perhaps the White-throated Kingfishers of Sumatra are an example. Most of Sumatra must have been heavily forested in historical times. Now the forest is being cleared at a rapid rate, due to the spread of both subsistence farming and commercial plantations. None of the other resident kingfishers of the island (with the partial exception of Halcyon chloris) seems to be able to settle in open or semi-open habitats in significant numbers. Thus, the invading White-throated Kingfishers probably moved into an environment that was new for Sumatra, and partly free of close competitors, but not very different in most respects from that of the original point of departure (presumably somewhere in the Malay Peninsula). It is not surprising that the invaders have survived. It will be interesting to see if they continue to spread.

The occupation of this new area does not seem to have entailed any major ecological shift by the new immigrants. In other invasion stances,

The invasion probably was natural. Kingfishers are not popular cage birds (the dealer near Medan was remarkably ...), and Halcyon are seldom kept in zoos. The Sumatran population is very unlikely to have been founded by escapes from captivity.

Note: 8:10 ~~A.M.~~ Cap Burning Oct. 14th.

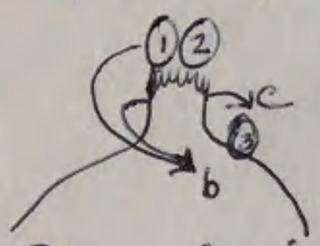
A hornbill just flew by (looked like the black one) ~~and~~ over the houses (betw. front row + pump). Roller that was on cucurucho chased it, vocalizing loudly. Did not attack it, just flew behind and over it abt. 2 mts. distant. Hornbill did not react but went on flying non-stop, (w/out gliding). Roller chased it just beyond the houses and turned back to its perch, w/out vocalizing. Both birds were fairly high.

Nov = Rattle

Roller = Blueberry

Note 9:05 A.M.

Three rollers on perch; sitting quietly



then (2) nudged (1); looked like grooming, but bird (1) had to jump to position b; stayed there while (2) looked down. Then (1) went hopping around to position c and attacked bird (3). Bird (3) retributed and both flew off chasing each other. Shortly after, bird (2) flew off in same direction. Happened fairly fast. Ten mts. later had not returned.

7:02 - one bird in usual haunt (furthest off)

7:07 - gone; scared off by a man.

7:25 - no birds still (from 7:07); not in beach either

7:45 - still no birds

7:55 - one bird moved in, same place; flew from nearby palm on same side. (At 8:00 workers start arriving)

8:02 - bird same place; another flew in direction of beach

8:05 - bird still there.

8:15 - single bird is gone.

8:30 - no birds; the people are not working near.

8:45 - one roller on nearby palms

Bluebellis. Annexe Hotel Aubert. Oct. 15, 1976.

Casamance, Senegal

General Comments Kingfishers

Basic Repertory of Sounds: Single — Coloublet, Triplet, Quadriplet) — Chatter (incl. Twitters, Yelps, and perhaps Whistles) — Rattles

Does this Basic Repertory differ from that of Coraciae?

Halcyon spp all (?) have Long. Ceryle (and Alcedo ?) don't (as) not.

Halcyon is the most Coracias-like of the Kingfishers

H. senegalensis is more like smyrnensis, in behavior, than either is like malimbicus.

The relatively melodious "Whistles" of some Halcyon spp are surprising. Is this quality an adaptation to forest conditions? If so, how?

What is the significance of the fact that senegalensis and malimbicus look similar but sound very different? Is this only character displacement?

The 2 most gregarious of "typical" Coraciiformes, Ceryle rudis and Coracias cyanogaster, show very different trends in display behavior. Tendency to "de-ritualization" in cyanogaster. A proliferation of ambivalent motivations, perhaps? Possibly because the heller is comparatively sluggish, and therefore can rely upon intention movements, while the kingfisher is more mobile and needs more emphatic signals of more conspicuous significance. (There is also, of course, a difference in average size of the

Phoeniculus purpureus would seem to fit into this roller-hornbill scheme very well (Perhaps even parallel or convergent to Coracias garrulus?)

Do the absence of boring in Cerylo functionally related to the development of sexual dimorphism in color???

Doubtless the generally brighter coloration of ♀♀ is correlated with less nesting (And independent hunting?)

Halcyon spp. are improved Coracias; 82.

Increased terrestriality probably has evolved several times in the genus Halcyon, 86.

Migratory and sedentary Halcyon may have different pairing strategies; 87

Nr jabbing during flight is; 149.

Coraciiformes

RIJKSMUSEUM VAN NATUURLIJKE HISTORIE

RAAMSTEEG 2, LEIDEN, NEDERLAND — TELEFOON 071-14 38 44
CORRESPONDENTIE-ADRES: POSTBUS 9517, 2300 RA LEIDEN

Dr. M. H. Moynihan
Smithsonian Tropical Research Institute
Box 2072
Balboa

Panama Kanaal Zone

Leiden, June 12th 1979.

Dear Dr. Moynihan,

There is very little I can tell you about Halcyon smyrnensis in addition to the information contained in my last letter, but it seems indeed clear to me that in both Sumatra and Java the species is a new colonist.

In the large collections made in Deli in the early years of this century (1912-1915) by Dr. P.L. de Bussy (published 1919, by de Beaufort & de Bussy, Bijdr. Dierk. 21: 229-276; more unpublished material in our collection) there is no mention of H. smyrnensis, although nine species of Alcedinidae were collected. Yet, Baron van Lynden, thirty years later, called it the commonest kingfisher in the same region. Surely this indicates, yes practically proves, recent colonization.

In the article mentioned above, de Bussy makes an interesting remark in the discussion of H. chloris, of which I give here a free translation: "This species is very common everywhere along the coast.... for many years I have never seen it far from the coast, such in strong contrast to its behaviour in Java, where for example near Buitenzorg, not to mention many other places, it is numerous. In 1915, however, to my surprise, I discovered it in the Highlands in the neighbourhood of Kaban Djahé, hence far into the interior. This distribution is peculiar as the species does not appear to occur in the intervening country". From this it would appear that in the Bussy's time H. chloris did not occur in the cultivated lowlands (where indeed it is common in Java). This may be connected with the fact that colonization of Deli by tobacco planters began only about 1860 or 1870, in what previously was heavy forest. Open cultivated country must have been a new habitat in Deli, that in the Bussy's time had not yet been colonized by H. chloris, and this may possibly have given H. smyrnensis its opportunity. You will realize that this is only speculation, as I have no personal experience in Deli. Did you see H. chloris there?

West Java is ornithologically so well-known, that I am sure that if H. smyrnensis ever occurred there as more than a rare straggler, it would have been recorded. Even now there is only this single case of breeding known so that the species can hardly be said to be established in Java. Its appearance is even more recent than in Sumatra. In this case the explanation suggested above for Sumatra, that there was an open niche available, is invalid as in Java H. chloris is common in cultivated country.

→ p. 2

RIJKSMUSEUM VAN NATUURLIJKE HISTORIE
RAAMSTEEG 2, LEIDEN, NEDERLAND — TELEFOON 071-14 38 44
CORRESPONDENTIE-ADRES: POSTBUS 9517, 2300 RA LEIDEN

Leiden,

Conclusion: H. smyrnensis colonized eastern Sumatra (Deli) about sixty years ago, following forest clearing and other human activities, In Java there is even now no evidence that it has actually settled and further developments must be awaited. You could ask Wells how the species H. chloris and H. smyrnensis interact in Malaya.

Yours sincerely,

G. F. Mees

May 18, 1979

Dr. G.F. Mees
Rijksmuseum van Natuurlijke
Historie
Raamsteeg 2
Postbus 9517,2300 RA
Leiden, Nederland

Dear Dr. Mees:

Thank you for your letter of May 2nd with the information on Halcyon smyrnensis in Sumatra and Java. It was very helpful indeed.

One of the subjects in which I am most interested is competition among species (with all the behavioral interactions involved). I wonder, therefore, how the relations between smyrnensis and other Halcyon kingfishers, especially chloris, will eventually evolve (or settle down) in Sumatra. In this context, it would be useful to know if the Sumatran smyrnensis are relatively recent invaders or a relict of some earlier, Pleistocene or post-Pleistocene, expansion. Do you know of any data that would be relevant to this question?

Yours sincerely,

MHM/

Martin H. Moynihan
Senior Scientist

Ref orig. letter to Dr. M

The Knights usually move in Pairs.